

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEM <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30</i>				1. REQUISITION NUMBER 4200346655		PAGE OF 1 10	
2. CONTRACT NO.		3. AWARD/ EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER NNK10346655Q	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME Christina Williams		b. TELEPHONE NUMBER (No collect calls) 321-867-3912		8. OFFER DUE DATE/LOCAL TIME 08/05/2010 1200 ES	
9. ISSUED BY NASA/John F. Kennedy Space Center Office of Procurement Mail Code: OP-OS Kennedy Space Center FL 32899				10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input checked="" type="checkbox"/> SET ASIDE: 100.00 % FOR: <div style="display: flex; justify-content: space-between;"> <div> NAICS: 511210 SIZE STANDARD: \$25.0 </div> <div> <input checked="" type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS </div> <div> <input type="checkbox"/> EMERGING SMALL BUSINESS <input type="checkbox"/> SOLE SOURCE <input type="checkbox"/> 8(A) </div> </div>			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING	
15. DELIVER TO NASA/Kennedy Space Center KENNEDY SPACE CENTER FL 32899		CODE KSC		16. ADMINISTERED BY NASA/Kennedy Space Center Office of Procurement Mail Code: OP-OS Kennedy Space Center FL 32899		CODE KSC	
17a. CONTRACTOR/ OFFEROR		CODE		18a. PAYMENT WILL BE MADE BY		CODE	
TELEPHONE NO.							
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER				18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
001	INCO TERMS 2: DESTINATION DES S/W License						
002	DES S/W Maintenance Continued ... (Use Reverse and/or Attach Additional Sheets as Necessary)						
25. ACCOUNTING AND APPROPRIATION DATA						26. TOTAL AWARD AMOUNT (For Govt. Use Only)	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA						<input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED. <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.	
<input type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				<input type="checkbox"/> 29. AWARD OF CONTRACT REF. _____ OFFER DATED _____, YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER (Type or print)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (Type or print)		31c. DATE SIGNED	
				Christina L. Williams			

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STANDARD FORM 1449 (REV. 3/2005)
Prescribed by GSA - FAR (48 CFR) 53.212

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED☐ INSPECTED☐ NOTED:

ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

32c. DATE

32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE

32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE

32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER

34. VOUCHER NUMBER

35. AMOUNT VERIFIED
CORRECT FOR

36. PAYMENT

37. CHECK NUMBER

☐ PARTIAL ☐ FINAL☐ COMPLETE ☐ PARTIAL ☐ FINAL

38. S/R ACCOUNT NUMBER

39. S/R VOUCHER NUMBER

40. PAID BY

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT

42a. RECEIVED BY *(Print)*

41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER

41c. DATE

42b. RECEIVED AT *(Location)*42c. DATE REC'D *(YY/MM/DD)*

42d. TOTAL CONTAINERS

Article 43. Period of Performance

Period of Performance shall be from date of award through one year.

Software shall be delivered 30 days ARO.

Required delivery date for all maintenance is one year from date of award.

Article 44. Contract Terms and Conditions

SECTION A.1 GENERAL - COMMERCIAL ITEMS

[] GSA Schedule Item: This order is for a commercial item subject to the terms and conditions of the GSA Schedule Contract cited and any additional terms and conditions included below as addenda to FAR clause 52.212-4, Contract Terms and Conditions -- Commercial Items, contained in the GSA Schedule Contract.

[X] Open Market Item: This order is for a commercial item subject to the terms and conditions of FAR 52.212-4, Contract Terms and Conditions -- Commercial Items, incorporated by reference; FAR 52.212-5, Contract Terms and Conditions Required to Implement Statutes and Executive Orders, attached to this order; and any additional terms and conditions included below as addenda to 52.212-4.

This order incorporates the following FAR and NASA FAR Supplement (NFS) clauses by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government, include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause. The full text of a clause may be accessed electronically at this/these address(es):

FAR: <http://www.acqnet.gov/far/>

NFS: <http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

ADDENDUM TO 52.212-4, CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS

52.212-4 Contract Terms and Conditions - Commercial Items. (JUN 2010)

52.227-14 Rights in Data--General. (DEC 2007)

52.232-1 Payments. (APR 1984)

52.247-34 F.o.b. Destination. (NOV 1991)

52.252-2 Clauses Incorporated by Reference. (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): Federal Acquisition Regulation (FAR) clauses:

<http://www.acqnet.gov/far/>

NASA FAR Supplement (NFS) clauses:

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of clause)

1852.215-84 Ombudsman. (OCT 2003)

(b) Kelvin Manning, Mail Code: AA-B, Kennedy Space Center, FL 32899, 321-867-7246,
321-867-2876, Kelvin.M.Manning@nasa.gov.

1852.225-70 Export Licenses. (FEB 2000)

1852.237-73 Release of Sensitive Information. (JUN 2005)

52.212-5 Contract Terms and Conditions Required to Implement Statutes or Executive Orders--Commercial Items. (JUN 2010)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

[] Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(2) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Pub. L. 108-77, 108-78).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: Contracting Officer check as appropriate.

[](1) 52.203-6, Restrictions on Subcontractor Sales to the Government (SEP 2006), with Alternate I (OCT 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

[](2) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010)(Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

[](3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

[](4) 52.204-11, American Recovery and Reinvestment Act--Reporting Requirements (MAR 2009) (Pub. L. 111-5).

[](5) 52.219-3, Notice of Total HUBZone Set-Aside (JAN 1999) (15 U.S.C. 657a).

[](6) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JUL 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

[](7) Reserved.

X(8)(i) 52.219-6, Notice of Total Small Business Set-Aside (JUN 2003) (15 U.S.C. 644).

[](ii) Alternate I (OCT 1995) of 52.219-6.

[] (iii) Alternate II (MAR 2004) of 52.219-6.

[](9)(i) 52.219-7, Notice of Partial Small Business Set-Aside (JUN 2003) (15 U.S.C. 644).

[](ii) Alternate I (OCT 1995) of 52.219-7.

[] (iii) Alternate II (MAR 2004) of 52.219-7.

[](10) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637(d)(2) and (3)).

[](11)(i) 52.219-9, Small Business Subcontracting Plan (APR 2008) (15 U.S.C. 637(d)(4)).

[](ii) Alternate I (OCT 2001) of 52.219-9.

[](iii) Alternate II (OCT 2001) of 52.219-9.

[](12) 52.219-14, Limitations on Subcontracting (DEC 1996) (15 U.S.C. 637(a)(14)).

[](13) 52.219-16, Liquidated Damages--Subcontracting Plan (JAN 1999) (15 U.S.C. 637(d)(4)(F)(i)).

[](14)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (OCT 2008) (10 U.S.C. 2323)(if the offeror elects to waive the adjustment, it shall so indicate in its offer.)

[](ii) Alternate I (JUN 2003) of 52.219-23.

[](15) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (APR 2008) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

[](16) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (OCT 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

[](17) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004)(15 U.S.C. 657 f).

[](18) 52.219-28, Post Award Small Business Program Rerepresentation (APR 2009) (15 U.S.C. 632(a)(2)).

X(19) 52.222-3, Convict Labor (JUN 2003) (E.O. 11755).

X(20) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (AUG 2009) (E.O. 13126).

X(21) 52.222-21, Prohibition of Segregated Facilities (FEB 1999).

X(22) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).

[](23) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006) (38 U.S.C. 4212).

[](24) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

[](25) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006) (38 U.S.C. 4212).

[](26) 52.222-54, Employment Eligibility Verification (Jan 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

[](27)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

[](ii) Alternate I (May 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

[](28) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007) (42 U.S.C. 8259b).

[](29)(i) 52.223-16, IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (DEC 2007) (E.O. 13423).

[](ii) Alternate I (DEC 2007) of 52.223-16.

[](30) 52.225-1, Buy American Act - Supplies (FEB 2009) (41 U.S.C. 10a-10d).

[](31)(i) 52.225-3, Buy American Act--Free Trade Agreements--Israeli Trade Act (JUN 2009) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, Pub. L. 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, and 110-138).

[](ii) Alternate I (JAN 2004) of 52.225-3.

[](iii) Alternate II (JAN 2004) of 52.225-3.

[](32) 52.225-5, Trade Agreements (AUG 2009) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

[](33) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

[](34) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).

[](35) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

[](36) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002)

(41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

[](37) 52.232-30, Installment Payments for Commercial Items (OCT 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

X(38) 52.232-33, Payment by Electronic Funds Transfer - Central Contractor Registration (OCT 2003) (31 U.S.C. 3332).

[](39) 52.232-34, Payment by Electronic Funds Transfer - Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

[](40) 52.232-36, Payment by Third Party (FEB 2010) (31 U.S.C. 3332).

[](41) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

[](42)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631).

[](ii) Alternate I (APR 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

[](1) 52.222-41, Service Contract Act of 1965 (NOV 2007) (41 U.S.C. 351, et seq.).

[](2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

[](3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (SEP 2009) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

[](4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (SEP 2009) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

[](5) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (NOV 2007) (41 U.S.C. 351, et seq.).

[](6) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements (FEB 2009) (41 U.S.C. 351, et seq.).

[](7) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009) (Pub. L. 110-247).

[](8) 52.237-11, Accepting and Dispensing of \$1 Coin (SEP 2008) (31 U.S.C. 5112(p)(1)).

(d) *Comptroller General Examination of Record.* The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records - Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(ii) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$550,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) Reserved.

(iv) 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246).

(v) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (SEP 2006) (38 U.S.C. 4212).

(vi) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(vii) Reserved.

(viii) 52.222-41, Service Contract Act of 1965 (NOV 2007) (41 U.S.C. 351, et seq.).

(ix) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(x) 52.222-51, Exemption from Application of the Service Contract Act to

Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (NOV 2007) (41 U.S.C. 351, et seq.).

(xi) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (FEB 2009)(41 U.S.C. 351, et seq.).

(xii) 52.222-54, Employment Eligibility Verification (Jan 2009).

(xiii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009) (Pub. L. 110-247). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xiv) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

Article 45. Statement of Work

NASA requires Discrete Event Simulation software that uses an object-oriented modeling framework. Many DES software available on the market use a process-based, software development, approach to modeling, making it difficult to develop and use them in large integrated software analysis systems. The object oriented modeling methodology is inherent to integration with modern software and modeling systems.

Article 46. Item Specifications (Brand Name or Equal (DES Software))

The requirements for this software are:

- Software must be able to build, debug, run, and collect data from Discrete Event Simulation models
- Software must run on standard Windows PCs
- Software must be a production level software (no beta code)
 - o Must be actively supported and maintained by the developer
 - o Must be responsive to user requests for new features
 - o Must be responsive to issues with the software
- Software must use an object-oriented modeling framework
 - o Must allow the model objects to be built, tested, and reused without programming
 - o Must allow the model objects to be individually changed without affecting the rest of the model in which they reside
 - o Must allow for the development of custom object libraries without programming
 - o Must allow the sub-classing of objects
 - o Must allow for sub-modeling
 - o Must allow object instances to be enhanced with add-on processes including time delays within the process
- Software must be scalable for application to various project sizes
- Software must have a graphical user interface for use by model developers and users.

- Software must allow for graphical model building only (no software coding required) – this application will be used by Modeling & Simulation professionals, not software professionals
- Software must be developed using the Microsoft .NET framework to allow the use of an abundant amount of programming resources available to it (Microsoft Development Network)
 - o Must be able to integrate with the Microsoft .NET languages to allow easy interfacing within a larger analysis system
- Software must be developed in an Object Oriented language to facilitate integration within a larger modeling and simulation framework
- Software must save models in an XML format
- Software must support an Application Programming Interface (API) for integration with other models and software
- Software must support concurrent 2D and 3D Animation
- Software must include a library of standard modeling objects, including but not limited to
 - o Resources (workers, facilities, machines)
 - o Entities
 - o Transporters
 - o Conveyors
 - o Paths (should be able to be single and bi-directional)
 - o Probabilistic and Conditional Routing Logic
 - o Object Creation and Termination
- Software must include a method of setting up and running a set of experiments and comparing the results
- Software must include real time displays and graphs of simulation output
- Software must support optimization of response parameters
- Software must be able to take advantage of multi-core processing to simultaneously make multiple replications
- Software must include a post-run simulation hierarchical output report that can be readily reorganized
- Software must allow object entities to follow pre-defined processing routing sequences
- Software must allow for a minimum of two-dimensional with a preference of up to ten-dimensional data array tables
- Software must allow adding behavior to entities and resources so objects can interact and make decisions
- Software must support multiple entity and resource types with different characteristics
- Software must support resources that can be seized and released, and moved over paths to a location where needed
- Software must include sample models to illustrate the concepts of the software objects and techniques in model building and use